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Dated: May 9, 2007

Signature:

(James J. Napoli)

Docket No.: 29827/42222
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Ulrich Riegel et al.

Application No.: 10/588,671

Confirmation No.: 9953

Filed: August 8, 2006

Art Unit: 1713

For: POSTCROSSLINKING OF WATER-
ABSORBING POLYMERS

Examiner: Not Yet Assigned

**TRANSMITTAL OF ENGLISH-LANGUAGE TRANSLATION OF
THE INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

MS PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants hereby submit an English-language translation of the International Preliminary Report on Patentability issued in connection with PCT/EP2005/001673, from which applicants claim priority.

Dated: May 9, 2007

Respectfully submitted,

By James J. Napoli
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From the INTERNATIONAL BUREAU

SG

US - ~~Boehringer~~**PCT**

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

14. feb. 2007
BASF AKTIENGESELLSCHAFT
67056 Ludwigshafen
ALLEMAGNE

AST/V

Date of mailing (day/month/year) 08 February 2007 (08.02.2007)	
Applicant's or agent's file reference 0000055369	IMPORTANT NOTIFICATION
International application No. PCT/EP2005/001673	International filing date (day/month/year) 18 February 2005 (18.02.2005)
Applicant BASF AKTIENGESELLSCHAFT et al	Phase bendot 14.02.07 Q

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

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TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 0000055369	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2005/001673	International filing date (day/month/year) 18.02.2005	Priority date (day/month/year) 24.02.2004	
International Patent Classification (IPC) or national classification and IPC C08J3/24 C08F20/06			
Applicant BASF AKTIENGESELLSCHAFT			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of _____ sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2005/001673

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:

international search (Rule 12.3 and 23.1(b))
 publication of the international application (Rule 12.4)
 international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

the international application as originally filed/furnished
 the description:
 pages 1-21 as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

the claims:
 nos. _____ as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19
 nos.* 1-26 received by this Authority on 30.07.2005 with letter of 28.07.2005
 nos.* _____ received by this Authority on _____

the drawings:
 sheets _____ as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____

a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (specify): _____
 any table(s) related to sequence listing (specify): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (specify): _____
 any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2005/001673

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																			
<p>1. Statement</p> <table> <tr> <td>Novelty (N)</td> <td>Claims</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims 1-26</td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims 1-26</td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims 1-26</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td>NO</td> </tr> </table> <p>2. Citations and explanations (Rule 70.7)</p> <p>1. Reference is made to the following documents:</p> <p>D1: DE 198 46 412 A1 (BASF AG) 13 April 2000 (2000-04-13) D2: US 6 620 889 B1 (MERTENS RICHARD ET AL) 16 September 2003 (2003-09-16) D3: US 5 599 335 A (GOLDMAN ET AL) 4 February 1997 (1997-02-04)</p> <p>2. Novelty over D1 and D3</p> <p>2.1. Novelty over D1 Novelty over D1 has been established by adoption of specific concentration ranges for the surface postcrosslinker and for the polyvalent cation in claim 1.</p> <p>2.2. Novelty over D3 The distinguishing feature over D3 is the presence of polyvalent cations on the absorber surface.</p> <p>2.3. Accordingly the claimed process and the claimed water-absorbing polymers are novel over D1 and D3.</p> <p>3. Novelty and inventive step over D2</p> <p>3.1. Novelty of process claims 1-20 The present application fails to meet the requirements of PCT Article 33(1), since the subject matter of claims 1-20 is not novel under PCT Article 33(2). Document D2 discloses processes for preparing water-absorbing polymers based on partially neutralized monomers bearing acid groups (70 mol% neutralization in examples 28 and 29) by post-</p>			Novelty (N)	Claims	YES		Claims 1-26	NO	Inventive step (IS)	Claims	YES		Claims 1-26	NO	Industrial applicability (IA)	Claims 1-26	YES		Claims	NO
Novelty (N)	Claims	YES																		
	Claims 1-26	NO																		
Inventive step (IS)	Claims	YES																		
	Claims 1-26	NO																		
Industrial applicability (IA)	Claims 1-26	YES																		
	Claims	NO																		

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

crosslinking the corresponding base polymers by treatment with a solution of a surface postcrosslinker B and a solution of a polyvalent cation C, and thermal treatment (D2: column 7/lines 50-55). The cited passage of text explicitly describes the separate addition of a surface postcrosslinker solution and of a salt solution containing polyvalent cations simultaneously. In other words, the addition must take place via two separate nozzles. This process variant is an obvious alternative to a process in which the two components (surface postcrosslinker and polyvalent cation) are added together in one solution. This generally applicable and inventive teaching of document D2 can of course be applied to all embodiments. Examples 28 and 29 of document D2 describe novelty-prejudicing amounts for the surface postcrosslinker and the polyvalent cation: 0.5% by weight in each case. There is no explicit description of what variant of the addition of the surface postcrosslinker and the polyvalent cation was selected in examples 28 and 29. In accordance with the general teaching in D2, however, both of the aforementioned variant modes of addition are possible. Consequently there are not 3 selections to be made, as the applicant has argued, but instead a maximum of one selection, namely the separate metering. Since no more than one selection must be made, the teaching of document D2 is also prejudicial to the novelty of the amended set of claims, under PCT Article 33(2).

3.2 Inventive step of process claims 1-20

Since novelty has not been established for the process claims, it is not possible to discuss the inventive step (PCT Article 33(3)).

3.3. Novelty of product claims 21-26

The product claims 21-26 are not novel over the closest prior art D2, under PCT Article 33(2). It is possible that a significantly increased value for the fluid transmissibility, of at least 80×10^{-7} cm³s/g, in combination with a small amount of surface postcrosslinker and polyvalent cation employed, could form the distinguishing feature. Since,

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Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

however, no methods of determining this possible distinguishing feature have been specified, it possesses no meaningfulness and is therefore unable to delimit the subject matter of the invention from the closest prior art D2.

3.4. Inventive step of product claims 21-26

Since novelty has not been established for the product claims, it is not possible to discuss the inventive step (PCT Article 33(3)).

4. Industrial applicability

The industrial applicability of the subject matter of claims 1-26 according to PCT Article 33(4) exists in the field of the preparation of strongly water-absorbing polymers.

5. The requirements of PCT Article 33(1) have not been met, on account of a lack of novelty of claims 1-26.

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The statement of claim 21 is not consistent with the content of the passage of text on page 11 lines 35-36. According to claim 21 the polymer must have to an extent of at least 80% by weight a particle size of between 150 and 600 μm , whereas according to the passage of text at page 11 lines 35-36 this particle size range is merely optional. Consequently the two passages are inconsistent and are contrary to the requirements of PCT Article 6.
2. Claim 12
Claim 12 is dependent on claim 1, but at 0.1% - 1% by weight claims a larger range for the concentration of the surface postcrosslinker on the base polymer than does claim 1. Accordingly, claim 1 and 12 contradict one another. The requirements in terms of clarity under PCT Article 6 are therefore not met for claim 12.
3. Making the description consistent with amended claim 1 - PCT Rule 5
Rule 5.1(a) (iii) requires the invention to be set out in the description in the same way as it is disclosed in the claims. Since this is not the case with the present description, PCT Rule 5 has not been met.
Since the description still contains passages of text (particularly at page 5 lines 8-10 ("for example 0.01% to 1% by weight, preferably 0.05% to 0.5% by weight, with particular preference 0.1% to 0.25% by weight")) which relate to the original set of claims, contradictions are produced between the description and the claims. Accordingly the claims are not clear and not supported by the description, in contravention of PCT Article 6.